

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) An integrated circuit for processing image data, said integrated circuit comprising:

a bus;

a first memory connected to said bus;

a first processing unit operable to access said first memory via said bus;

a second processing unit operable to access said first memory via said bus, and operable to perform at least one of data processing and calculation, in a larger amount than said first processing unit; and

a second memory operable to be accessed by said second processing unit without passing through said bus, such that said second processing unit accesses said second memory without accessing said bus,

wherein said second processing unit includes at least one of an image input circuit and an image output circuit,

wherein said image input circuit receives output image data from a first component located outside said integrated circuit,

wherein said image output circuit generates video signals for outputting to a second component located outside said integrated circuit, and

wherein said second memory is always and only occupied ~~only~~ by said second processing unit, ~~when said second processing unit stores image data related to at least one of the output image data and the video signal in said second memory.~~

Claim 2 (Previously Presented) The integrated circuit as recited in claim 1,

wherein said image input circuit receives the output image data from a camera device connectable to said integrated circuit, and

wherein said image output circuit generates a video signal for outputting to a display device connectable to said integrated circuit, so as to display an image according to the generated video signal.

Claim 3 (Previously Presented) The integrated circuit as recited in claim 1,

wherein said first processing unit expands compressed audio signals,

wherein said second processing unit expands compressed video signals, and

wherein said second processing unit stores reference image data into said second memory, the reference image data being generated when the compressed video signals are expanded.

Claim 4 (Previously Presented) The integrated circuit as recited in claim 1,

wherein said first processing unit compresses audio signals,

wherein said second processing unit compresses video signals, and

wherein said second processing unit stores reference image data into said second memory, the reference image data being generated when the compressed video signals are expanded.

Claim 5 (Previously Presented) The integrated circuit as recited in claim 1,

wherein said first processing unit performs at least one of de-multiplexing audio signals and video signals from a bit stream and multiplexing audio signals and video signals into a bit stream.

Claim 6 (Previously Presented) The integrated circuit as recited in claim 1,
wherein said second processing unit generates computer graphics image data.

Claim 7 (Previously Presented) The integrated circuit as recited in claim 1,
further comprising a control unit operable to control at least one of said first processing unit and said second processing unit.

Claim 8 (Currently Amended) An electric device comprising:
an integrated circuit for processing image data; and
a converter,
wherein said integrated circuit comprises:
a bus;
a first memory connected to said bus;
a first processing unit operable to access said first memory via said bus;
a second processing unit operable to access said first memory via said bus, and
operable to perform at least one of data processing and calculation, in a larger amount than said first processing unit; and

a second memory operable to be accessed by said second processing unit without passing through said bus, such that said second processing unit accesses said second memory without accessing said bus,

wherein said second processing unit includes at least one of an image input circuit and an image output circuit,

wherein said image input circuit receives output image data from a first component located outside said integrated circuit,

wherein said image output circuit generates video signals for outputting to a second component located outside said integrated circuit, and

wherein said second memory is always and only occupied ~~only~~ by said second processing unit, ~~when said second processing unit stores image data related to at least one of the output image data and the video signal in said second memory.~~

Claim 9 (Previously Presented) The electric device as recited in claim 17, wherein said integrated circuit further comprises a control unit operable to control at least one of said first processing unit and said second processing unit.

Claim 10 (Previously Presented) The electric device as recited in claim 17, further comprising: a display device operable to input the video signals generated by said second processing unit to display an image; and a playback device operable to reproduce sounds according to the analog audio signals converted by said converter.

Claim 11 (Previously Presented) The electric device as recited in claim 17, wherein said second processing unit generates computer graphics image data.

Claim 12 (Currently Amended) An electric device comprising:

- a camera;

- a microphone;

- an integrated circuit for processing image data; and

- a converter,

wherein said integrated circuit comprises:

- a bus;

- a first memory connected to said bus;

- a first processing unit operable to access said first memory via said bus;

- a second processing unit operable to access said first memory via said bus, and operable to perform at least one of data processing and calculation, in a larger amount than said first processing unit; and

- a second memory operable to be accessed by said second processing unit without passing through said bus, such that said second processing unit accesses said second memory without accessing said bus,

- wherein said second processing unit includes at least one of an image input circuit, and an image output circuit,

- wherein said image input circuit receives output image data from a first component located outside said integrated circuit,

wherein said image output circuit generates video signals for outputting to a second component located outside said integrated circuit, and

wherein said second memory is always and only occupied ~~only~~ by said second processing unit, ~~when said second processing unit stores image data related to at least one of the output image data and the video signals in said second memory.~~

Claim 13 (Previously Presented) The electric device as recited in claim 19,

wherein said second processing unit generates computer graphics image data.

Claim 14 (Previously Presented) The electric device as recited in claim 19,

wherein said integrated circuit further comprises a control unit operable to control at least one of said first processing unit and said second processing unit.

Claim 15 (Previously Presented) The integrated circuit as recited in claim 1,

wherein said second processing unit performs at least one of: (i) compressing image data stored in said second memory; (ii) expanding compressed data to image data; (iii) generating image data using a computer graphics operation; and (iv) processing/editing image data, while said first processing unit performs, using said first memory, processing other than the at least of (i), (ii), (iii) and (iv) performed by said second processing unit.

Claim 16 (Previously Presented) The electric device as recited in claim 8,

wherein said image input circuit receives the output image data from a camera device connectable to said integrated circuit, and

wherein said image output circuit generates a video signal for outputting to a display device connectable to said integrated circuit, so as to display an image according to the generated video signal.

Claim 17 (Previously Presented) The electric device as recited in claim 16,

wherein said first processing unit expands compressed audio signals,

wherein said second processing unit expands compressed video signals to generate video signals,

wherein said second processing unit stores reference image data into said second memory, the reference image data being generated when the compressed video signals are expanded, and

wherein said converter converts the audio signals expanded by said first processing unit into analog audio signals.

Claim 18 (Previously Presented) The electric device as recited in claim 12,

wherein said image input circuit receives the output image data from said camera, which is connectable to said integrated circuit, and

wherein said image output circuit generates a video signal for outputting to a display device connectable to said integrated circuit block, so as to display an image according to the generated video signal.

Claim 19 (Previously Presented) The electric device as recited in claim 12,

wherein said first processing unit compresses audio signals,

wherein said second processing unit inputs video signals from said camera to compress the video signals,

wherein said second processing unit stores reference image data into said second memory, the reference image data being generated when the compressed video signals are expanded, and

wherein said converter is operable to input analog audio signals from said microphone to convert the analog audio signals into digital audio signals, and operable to output the digital audio signals to said first processing unit.